IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant : Peter Streuer

Title: RECHARGEABLE BATTERY AND SEALING PLUG FOR A RECHARGEABLE BATTERY

Appl. No.: 10/706,726

Filing Date: 11/12/2003

Examiner: Ben Lewis

Art Unit: 1795

Conf. No.: 7254

BRIEF ON APPEAL

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P.O. Box 1450
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Under the provisions of 37 C.F.R. § 41.37, this Appeal Brief is being filed with the fee in the amount of $540.00 covering the 37 § C.F.R. 41.20(b)(2) appeal fee which is being paid by credit card via EFS-Web. Applicant hereby petitions for an extension of time to make this response timely. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or credit any balance) to deposit account 19-0741.

REAL PARTY IN INTEREST

This application has been assigned to and is presently owned by VB Autobatterie GmbH having a place of business at Am Leineufer 51, D-30419 Hannover, Germany.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to Appellant, the Appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

This is an appeal from the Office Action dated October 06, 2008 in which Claims 13-18, 21-27, 30, 32, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent No. DE 33 30 823 (Krabatsch); Claims 19-20, 28-29, and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Krabatsch in view of U.S. Patent No. 4,201,647 (Spaziante); and Claims 31 and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Krabatsch in view of U.S. Patent No. 6,733,921 (Richter).

Claims 13-36 are pending in the present application, and are the subject of the present appeal. Claims 1-12 were previously cancelled without prejudice in a response filed by Appellant on September 12, 2008. Appellant submits that at least one of such claims has been rejected at least twice in the present application.

For the record, it is noted by Appellant that various claims that had been previously rejected during prosecution of the present application were cancelled and presented as new claims in the response filed on September 12, 2008, and that these new claims now stand rejected by the Examiner.

STATUS OF AMENDMENTS

Claims 13-36 were pending in the application when the Office Action dated October 6, 2008 was issued. No amendments to the claims have been made subsequent to the Office Action dated October 6, 2008.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 13 is directed to a rechargeable battery having a housing comprising at least two cells that can be filled with an electrolyte. See Specification at page 4, lines 5-7. The rechargeable battery includes a degassing system 2 having openings 4 provided therein. See Specification at page 6, lines 3-7 and FIGS. 1a-2. The degassing system 2 is arranged such that the openings 4 are located above the cells of the rechargeable battery. See Specification at page 4, lines 8-10. The rechargeable battery also includes a sealing plug 5 provided in each of the openings 4. See Specification at page 6, lines 5-7 and FIGS. 1a-2. The sealing plug 5 has an upper part 6 and a lower part 9 having a splash basket 13 that has an inner cavity 12 that decreases in size from an upper end of the splash basket 13 to a terminal end of the splash basket 13. See Specification at page 6, lines 9 and 17-22 and FIGS. 1a-2. The splash basket 13 includes a plurality of plates 15 that extend from the upper end of the splash basket 13

to the terminal end of the splash basket 13. See Specification at page 6, lines 22-25 and FIGS. 1a-2. The plates 15 are separated from each other by slots 14 that extend to the terminal end of the splash basket 13 such that the plates 15 are not coupled together at the terminal end of the splash basket 13 to allow free movement of the plates 15 at the terminal end of the splash basket 15. Id.

Independent Claim 23 is directed to a rechargeable battery having a housing including at least two cells that can be filled with an electrolyte. See Specification at page 4, lines 5-7. The rechargeable battery includes a cover 1 having openings 3 provided therein. See Specification at page 6, lines 2-6. The rechargeable battery also includes a degassing system 2 having openings 4 provided therein. See Specification at page 6, lines 3-7 and FIGS. 1a-2. The cover 1 and the degassing system 2 are arranged such that the openings 3, 4 provided in the cover 1 and the degassing system 2 are located above the cells of the rechargeable battery. See Specification at page 4, lines 8-10. The rechargeable battery further includes a sealing plug 5 provided in each of the openings 4 of the degassing system 2. See Specification at page 6, lines 5-7 and FIGS. 1a-2. The sealing plug 5 has an upper part 6 covering the openings 3 on the outside of the cover 1 and a lower part 9 having a splash basket 13 that has a terminal end extending in the direction of the cells. See Specification at page 6, lines 9 and 17-22 and FIGS. 1a-2. The splash basket 13 includes a plurality of plates 15 separated by slots 14 distributed around the circumference of the splash basket 13. See Specification at page 6, lines 19-23 and FIGS. 1a-2. The slots 14 continue to the terminal end of the splash basket 13 such that the plates 15 at the terminal end of the splash basket 13 are not connected to adjacent plates 15.

Id. The separation of the plates 15 at the terminal end of the splash basket 13 allows the splash basket 13 to flex upon insertion into the openings 4 of the degassing system 2. See Specification at page 6, lines 23-25.

Independent Claim 32 is directed to a sealing plug 5 for sealing openings 3, 4 which are incorporated above cells in a rechargeable battery. See Specification at page 6, lines 5-7 and FIGS. 1a-2. The sealing plug 5 includes an upper part 6 and a lower part 9 which ends in a splash basket 13. See Specification at page 6, lines 9 and 17-22 and FIGS. 1a-2. The splash basket 13 defines an opening that increases in size with increasing distance from the terminal end of the splash basket 13. See Specification at page 6, lines 18-19 and FIGS. 1a-2. The splash basket 13 includes a plurality of plates 15 separated by slots 14 that extend from the upper end of the splash basket 13 to the terminal end of the splash basket 13. See Specification at page 6, lines 19-23 and FIGS. 1a-2. The slots 14 narrow in width from an upper end of the splash basket 13 to the terminal end of the splash basket 13. See Specification at page 6, lines 20-22 and FIG. 1a-2. The plates 15 are not connected to adjacent plates 15 at the terminal end of the splash basket 13 to allow free movement of the plates 15 relative to each other upon insertion into an opening 3, 4 of the rechargeable battery. See Specification at page 4, lines 15-23 and FIGS. 1a-2.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues on appeal are:

1. Whether Claims 13-18, 21-27, 30, 32, and 35 may properly be rejected under 35 U.S.C. § 103(a) over Krabatsch;

2. Whether Claims 19-20, 28-29, and 33 may properly be rejected under 35 U.S.C. § 103(a) over Krabatsch in view of Spaziante;

3. Whether Claims 31 and 36 may properly be rejected under 35 U.S.C. § 103(a) over Krabatsch in view of Richter.

ARGUMENT

I. Legal Standards

A. 35 U.S.C. § 103(a)

Claims 13-36 have been rejected under 35 U.S.C. § 103(a), the text of which is reproduced here:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Obviousness under 35 U.S.C. § 103(a) involves four factual inquiries: 1) the scope and content of the prior art; 2) the differences between the claims and the prior art; 3) the level of ordinary skill in the pertinent art; and 4) secondary considerations, if any, of nonobviousness. See Graham v. John Deere Co., 383 U.S. 1, 86 S. Ct. 684, 15 L.Ed.2d 545, 148 U.S.P.Q. 459 (U.S. Mo. Feb 21, 1966) (No. 11, 37, 43) (BNA Version). See also KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734, 82 U.S.P.Q.2d 1385, 1391 (2007) ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955,1956 (Fed. Cir. 1993). A prima facie case of obviousness requires a finding that the prior art included each element claimed, although not necessarily in a single prior art reference. See Federal Register, Vol. 72, No. 195, October 10, 2007, page 57529. A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 U.S.P.Q. 560, 562 (CCPA 1972). A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not "evidence." Thus, when an Examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 U.S.P.Q.2d 1430, 1433-35 (Fed. Cir. 2002). See also In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

Recently, in KSR Int'l v. Teleflex, the Supreme Court rejected a rigid approach to the question of obviousness. 550 U.S. 398, 127 S.Ct. 1727, 1738 (2007). At the same time, however, the Supreme Court recognized that "inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." Id. at 1741. Thus, a claim composed of several elements "is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." Id. Therefore, there must be an articulated

reasoning with a rational underpinning to support a legal conclusion of obviousness. Id. ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.") (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

II. The Rejection of Claims 13-18, 21-27, 30, 32, and 35 Under 35 U.S.C. § 103(a) Should Be Withdrawn, Since at Least One Element of Every Rejected Claim is Not Disclosed, Taught, or Suggested by Krabatsch.

On page 2 of the Office Action mailed October 6, 2008, the Examiner rejected Claims 13-18, 21-27, 30, 32, and 35 under 35 U.S.C. § 103(a) over European Patent No. DE 33 30 823 titled "Closing Plug for an Accumulator" to Krabatsch.

Appellant submits that the Examiner's rejection of Claims 13-18, 21-27, 30, 32, and 35 is improper and should be withdrawn, since Krabatsch does not disclose, teach, or suggest at least one element recited in each of the rejected claims.

A. Claims 13, 23, and 32

The Examiner's rejection of independent Claims 13, 23, and 32 is improper because Krabatsch fails to disclose, teach or suggest at least one element recited in each of Claims 13, 23, and 32, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 13, 23, and 32.

Claim 13 is in independent form and recites a "rechargeable battery" comprising, in combination with other elements, a "sealing plug having an upper part and a lower part, the lower part comprising a splash basket" that "comprises a plurality of plates that extend from the

upper end of the splash basket to the terminal end of the splash basket, the plates separated from each other by slots that extend to the terminal end of the splash basket such that the plates are not coupled together at the terminal end of the splash basket to allow free movement of the plates at the terminal end of the splash basket" (underlining added for emphasis).

Claim 23 is in independent form and recites a "rechargeable battery" comprising, in combination with other elements, a "sealing plug having an upper part covering the openings on the outside of the cover and a lower part having a splash basket" that "comprises a plurality of plates separated by slots distributed around the circumference of the splash basket, the slots continuing to the terminal end of the splash basket such that the plates at the terminal end of the splash basket are not connected to adjacent plates" (underlining added for emphasis).

Claim 32 is in independent form and recites a "sealing plug" comprising, in combination with other elements, a "splash basket having an upper end and a lower terminal end" in which "the splash basket comprises a plurality of plates separated by slots that extend from the upper end of the splash basket to the terminal end of the splash basket, the slots narrowing in width from an upper end of the splash basket to the terminal end of the splash basket, wherein the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery" (underlining added for emphasis).

One exemplary embodiment of such a "rechargeable battery" as recited in Claims 13 and 23 or a "sealing plug" as recited in Claim 32 is shown in FIGS. 1a and 2 of the present application, which are reproduced below for the Board's convenience. As can be seen in

FIGS. 1a and 2, the "plates 15" are not attached to one another at the terminal end of the "splash basket 13." Instead, the "plates 15" are separated from one another by "slots 14," allowing free movement of the "plates 15" relative to one another.

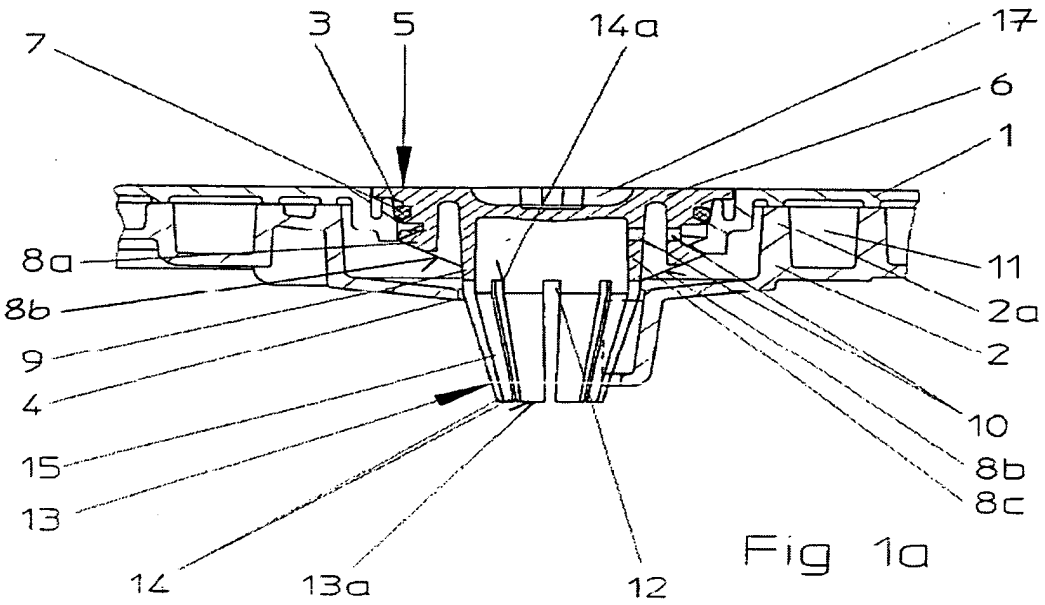

Fig 1a

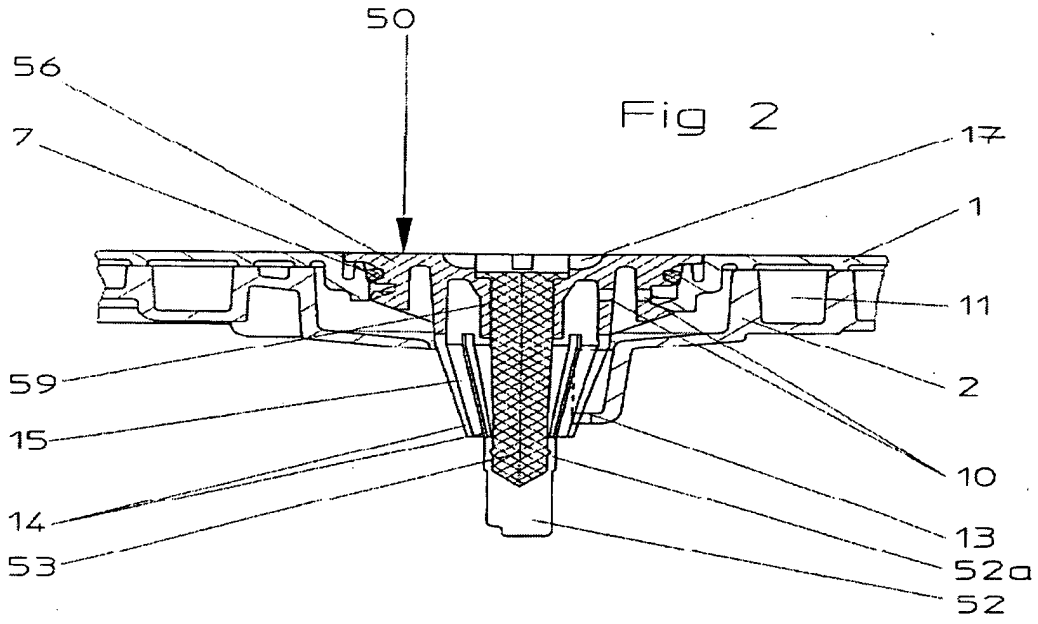

Fig 2

In contrast to the "rechargeable battery" recited in Claims 1 and 23 and the "sealing plug" recited in Claim 32, Krabatsch discloses in FIG. 1, for example, a ring-like member 24 (referred to by the Examiner as a "lower edge support 24") at the lower end of the plug. This ring-like member 24 locks the lower end of the plug together so that there is no individual movement with respect to one another of the members that the Examiner considers to be equivalent to the "plates 15" of the present application. See Krabatsch at FIG. 1.

The Examiner acknowledged on page 4 of the Office Action mailed October 6, 2008 that Krabatsch does not disclose plates that are not connected to adjacent plates at a terminal end of a splash basket (with underlining added for emphasis):

> Since there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support 24 at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

The "rechargeable battery" recited in independent Claims 13 and 23 and the "sealing plug" recited in Claim 32 would not have been obvious in view of Krabatsch under 35 U.S.C. § 103(a).

The Examiner indicated on page 4 of the Office Action mailed October 6, 2008 that the Appellant has provided "no showing of . . . criticality of the end of Applicant's slots being free." The Appellant respectfully disagrees. The present specification includes numerous descriptions related to the criticality of the free ends of the plates. Paragraphs [0006] and [0014]-[0016] of the present specification are provided here as one example of such a statement (with underlining added for emphasis):

[0006] An electrical rechargeable battery which is described by the Laid-Open Specification DE 198 56 691 A1 has degassing plugs which are arranged in a cell cover and on whose lower part a splash basket is provided. On its circumference, the splash basket has slots which widen downwards. The splash basket likewise has a base, which is tilted inwards and extends upwards in a conical shape towards the center of the plug. At the bottom, the slots are bounded by the base. This makes the degassing plug stiff, which means that the degassing plug must be inserted accurately at right angles to the cell cover.

[0014] According to an exemplary embodiment, a battery (e.g., a rechargeable lead-acid vehicle battery for use in starting, lighting, and ignition applications) includes a housing which has two or more cells that can be filled with an electrolyte. . . . A sealing plug is also provided that can be introduced into each of the openings (e.g., for sealing openings which are incorporated above the cells in the battery) such that an upper part of the sealing plug covers the openings on the outside, and a lower part of the sealing plug extends in the direction of the cells and has a splash basket which surrounds a cavity and has longitudinal slots distributed over its circumference. According to an exemplary embodiment, the slots continue as far as a free end of the splash basket.

[0015] One advantageous feature of such an arrangement is that the cover of a rechargeable battery can be sealed relatively easily by means of the sealing plug (e.g., the sealing plug need not be inserted absolutely at right angles to the cover surface). If the sealing plug is inserted obliquely into the cover of a rechargeable battery, and the splash basket in the process abuts against the inner walls of the rechargeable battery, then the insertion process can be continued further to its final position owing to the flexibility provided for the splash basket by means of the continuous slots.

[0016] According to an exemplary embodiment, the sealing plug is integral. The splash basket elasticity which is achieved by the slots is in this case advantageously transferred to the entire sealing plug. It is particularly preferable for the sealing plugs to be produced using a plastic injection-molding method. This results in the advantage of slight elasticity in the longitudinal direction as well. The mobility of the plates, which are formed by the slots, of the splash basket allows the sealing plug to be inserted into the cover via the openings even without being centered exactly.

Accordingly, the Appellant has provided a clear description of the criticality of having free ends of the splash basket in which the plates are not coupled to each other to restrict their movement. The advantage of such a configuration is not disclosed, taught, or suggested by Krabatsch.

To transform the "closing plug for an accumulator" of Krabatsch into a "rechargeable battery" (such as recited in Claims 13 and 23) or the "sealing plug" (such as recited in Claim 32) would require still further modification, and such modification is taught only by the Appellant 's own disclosure.

The "rechargeable battery" recited in Claims 13 and 23, and the "sealing plug" recited in Claim 32, each considered as a whole, would not have been obvious in view of Krabatsch. At least one element recited in each of independent Claims 13, 23, and 32 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claims 13, 23, and 32 under 35 U.S.C. § 103(a).

The Appellant also notes that dependent Claims 14-18, 21-22, 24-27, 30, and 35 are also allowable for at least the same reasons described above with respect to Claims 13, 23, and 32, and that the rejection of such claims could be withdrawn on that basis. Nevertheless, the Appellant notes that other elements recited in certain of such dependent claims provide additional basis for patentability, and present arguments directed to those distinctions below (for those claims argued separately, their patentability should not be interpreted to stand or fall with independent Claims 13, 23, and 32).

B. Claims 15 and 24

Claims 15 and 24 depend from independent Claims 13 and 23 and are allowable for at least the reasons described above with respect to Claims 13 and 23.

The Examiner's rejection of Claims 15 and 24 is further improper because Krabatsch fails to disclose, teach, or suggest at least one element recited in each of Claims 15 and 24, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 15 and 24.

Claim 15 depends from independent Claim 13 and recites that "each of the slots has a width that broadens with increasing distance from the terminal end of the splash basket."

Claim 24 depends from independent Claim 23 and recites that "each of the slots has a width that broadens with increasing distance from the terminal end of the splash basket."

Krabatsch does not disclose, teach, or suggest that "each of the slots has a width that broadens with increasing distance from the terminal end of the splash basket" as recited in Claims 15 and 24. Instead, Krabatsch discloses rectangular slots that appear to have the same width along the entire length of the slots. See Krabatsch at FIG. 1. Slots having "a width that broadens with increasing distance from the terminal end of the splash basket," as recited in Claims 15 and 24, for example, allows the end of the splash basket to be more "elastically deformable, in particular in response to laterally applied forces." See Specification at page 6, lines 23-25 and FIGS. 1a-2.

Accordingly, at least one element recited in each of Claims 15 and 24 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claims 15 and 24 under 35 U.S.C. § 103(a).

C. Claims 16 and 25

Claims 16 and 25 depend from independent Claims 13 and 23 and are allowable for at least the reasons described above with respect to Claims 13 and 23.

The Examiner's rejection of Claims 16 and 25 is further improper because Krabatsch fails to disclose, teach, or suggest at least one element recited in each of Claims 16 and 25, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 16 and 25.

Claim 16 depends from independent Claims 13 and recites that "the sealing plug has an opening provided therein separate from the slots and adjacent to the openings of the degassing system and the degassing system is connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system."

Claim 25 depends from independent Claim 23 and recites that "the sealing plug has an opening provided therein separate from the slots and adjacent to the openings of the degassing system and the degassing system is connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system."

Krabatsch does not disclose, teach, or suggest that "the sealing plug has an opening provided therein separate from the slots and adjacent to the openings of the degassing system and the degassing system is connected to the splash basket via the opening in the sealing

plug such that the slots form return paths for electrolyte from the degassing system" as recited in Claims 16 and 25.

The Examiner has provided no support for the contention that Krabatsch discloses a "sealing plug" having "an opening provided therein separate from the slots and adjacent to the openings of the degassing system" (underlining added for emphasis). The Examiner also has provided no support for the contention that Krabatsch discloses "the degassing system" being "connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system."

This is not surprising, because nowhere disclosed, taught, or suggested by Krabatsch is a "sealing plug" having "an opening provided therein separate from the slots and adjacent to the openings of the degassing system and the degassing system is connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system."

Accordingly, at least one element recited in each of Claims 16 and 25 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claims 16 and 25 under 35 U.S.C. § 103(a).

D. Claims 17 and 26

Claims 17 and 26 depend from independent Claims 13 and 23 and are allowable for at least the reasons described above with respect to Claims 13 and 23.

The Examiner's rejection of Claims 17 and 26 is further improper because Krabatsch fails to disclose, teach, or suggest at least one element recited in each of Claims 17 and

26, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 17 and 26.

Claims 17 depends from independent Claim 13 and recites that "the sealing plug is integrally formed as part of the degassing system."

Claim 26 depends from independent Claim 23 and recites that "the sealing plug is integrally formed as part of the degassing system."

Krabatsch does not disclose, teach, or suggest that "the sealing plug is integrally formed as part of the degassing system" as recited in Claims 17 and 26. Instead, Krabatsch discloses a "plug" that is a separate and distinct component of an "accumulator." See Krabatsch at FIG. 1.

Accordingly, at least one element recited in each of Claims 17 and 26 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claims 17 and 26 under 35 U.S.C. § 103(a).

E. Claims 18 and 27

Claims 18 and 27 depend from independent Claims 13 and 23 and are allowable for at least for the reasons described above with respect to Claims 13 and 23.

The Examiner's rejection of Claims 18 and 27 is further improper because Krabatsch fails to disclose, teach, or suggest at least one element recited in each of Claims 18 and 27, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 18 and 27.

Claim 18 depends from independent Claim 13 and recites that "the splash basket has a roughened surface."

Claim 27 depends from independent Claim 23 and recites that "the splash basket has a roughened surface."

The Examiner has provided no support for the contention that Krabatsch discloses that "the splash basket has a roughened surface" as recited in Claims 18 and 27. This is not surprising, because nowhere in Krabatsch is it disclosed, taught, or suggested that "the splash basket has a roughened surface." As taught by the present disclosure, for example, the "rough surface" is used "to prevent the electrolyte from being able to rise in the slots 14 in the splash basket 13 towards the cover 1, for example as a result of capillary forces." See Specification at page 7, lines 3-6.

Accordingly, at least one element recited in each of Claims 18 and 27 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claims 18 and 27 under 35 U.S.C. § 103(a).

F. Claim 22

Claim 22 depends from independent Claim 13 and is allowable for at least the reasons described above with respect to Claim 13.

The Examiner's rejection of Claim 22 is further improper because Krabatsch fails to disclose, teach, or suggest at least one element recited in Claim 22, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claim 22.

Claim 22 depends from independent Claim 13 and recites that "the sealing plug has a seal which is fitted to the upper part of the sealing plug for sealing the cover."

Krabatsch does not disclose, teach, or suggest that "the sealing plug has a seal which is fitted to the upper part of the sealing plug for sealing the cover." Instead, Krabatsch discloses an "o-ring 5" around an "outer circumference of the bottom part 15" (underlining added for emphasis). See Krabatsch at page 2, lines 13-14 and FIG. 1.

Accordingly, at least one element recited in Claim 22 is not disclosed, taught, or suggested by Krabatsch. The Appellant respectfully requests that the Board withdraw the rejection of Claim 22 under 35 U.S.C. § 103(a).

III. The Rejection of Claims 19-20, 28-29, and 33 Under 35 U.S.C. § 103(a) Should Be Withdrawn, Since at Least One Element of Every Rejected Claim is Not Disclosed, Taught, or Suggested by the combination of Krabatsch and Spaziante.

On page 5 of the Office Action mailed October 6, 2008, the Examiner rejected Claims 19-20, 28-29, and 33 as being unpatentable under 35 U.S.C. § 103(a) over Krabatsch in view of U.S. Patent No. 4,201,647 titled "Measuring Electrodes and Process" to Spaziante.

Appellant submits that the Examiner's rejection of Claims 19-20, 28-29 and 33 is improper and should be withdrawn since the combination of Krabatsch and Spaziante does not disclose, teach, or suggest at least one element recited in each of the rejected claims.

A. Claims 19 and 20

The Examiner's rejection of Claims 19 and 20 is improper because the combination of Krabatsch and Spaziante fails to disclose, teach, or suggest at least one element recited in each of Claims 19 and 20, and thus has not established a prima facie case of

obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 19 and 20.

Claim 19 depends from independent Claim 13 and recites "an acid level indicator is attached to the upper part of the sealing plug and the acid level indicator has a roughened surface."

Claim 20 depends from independent Claim 13 and recites "a state of charge indicator is attached to the upper part of the sealing plug and the state of charge indicator has a roughened surface."

The combination of Krabatsch and Spaziante does not disclose, teach, or suggest that "the acid level indicator has a roughened surface" as recited in Claim 19, or that "the state of charge indicator has a roughened surface" as recited in Claim 20.

In the Office Action mailed October 6, 2008, the Examiner stated in part (with underlining added for emphasis):

> Krabatsch et al. do not disclose at least one of a state of charge indicator and acid level indicator attached to the upper part of the sealing plug and passing through the lower part of the sealing plug cavity.
>
> Krabatsch et al. as modified by Spaziante et al. is silent as to the roughness of the splash guards. However, it is the position of the Examiner that such properties are inherent, given that the materials of construction of the plug of Krabatasch et al. as modified by Spaziante et al. have an inherent roughness. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

Appellant agrees with the Examiner that Krabatsch does not disclose, teach, or suggest that "an acid level indicator is attached to the upper part of the sealing plug" as recited in Claim 19 or that "a state of charge indicator is attached to the upper part of the sealing plug" as recited in Claim 20.

Appellant also agrees with the Examiner that Krabatsch as modified by Spaziante is silent as to the roughness of the acid level indicator and the state of charge indicator. However, Appellant disagrees that the materials of construction of the plug of Krabatsch as modified by Spaziante have an inherent roughness that would render Claims 19 and 20 obvious.

First, as the Examiner has admitted, Krabatsch does not disclose, teach or suggest "an acid level indicator" as recited in Claim 19 or "a state of charge indicator" as recited in Claim 20. Thus, Krabatsch can not possibly disclose, teach, or suggest that "the acid level indicator has a roughened surface" or that "the state of charge indicator has a roughened surface."

Secondly, Spaziante teaches away from "the acid level indicator" and the "state of charge indicator" having "a roughened surface." For example, Spaziante teaches that a "reference electrode" has a "glass capillary 4." See Spaziante at page 6, line 13. The "glass capillary 4" inherently has a smooth surface, not a roughened surface, in order to encourage capillary forces. In contrast, the "acid level indicator" recited in Claim 19 and the "state of charge indicator" recited in Claim 20 each specifically has a "roughened surface" in order to prevent capillary forces. See Specification at page 7, lines 3-5 and 20-24.

Accordingly, at least one element recited in each of dependent Claims 19 and 20 is not disclosed, taught, or suggested by the combination of Krabatsch and Spaziante. The

Appellant respectfully requests that the Board withdraw the rejection of Claims 19 and 20 under 35 U.S.C. § 103(a).

B. Claims 28 and 29

The Examiner's rejection of Claims 28 and 29 is improper because the combination of Krabatsch and Spaziante fails to disclose, teach, or suggest at least one element recited in each of Claims 28 and 29, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claims 28 and 29.

Claims 28 and 29 depend from independent Claim 23, which recites "the splash basket comprises a plurality of plates separated by slots distributed around the circumference of the splash basket, the slots continuing to the terminal end of the splash basket such that the plates at the terminal end of the splash basket are not connected to adjacent plates, whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Krabatsch does not disclose, teach, or suggest that "the plates at the terminal end of the splash basket are not connected to adjacent plates, whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Instead, Krabatsch discloses in FIG. 1, for example, a ring-like member 24 (referred to by the Examiner as a "lower edge support 24") at the lower end of the plug. This ring-like member 24 locks the lower end of the plug together so that there is no individual

movement with respect to one another of the members that the Examiner considers to be equivalent to the "plates 15" of the present application. See Krabatsch at FIG. 1.

Combining Spaziante with Krabatsch does not cure the deficiencies of Krabatsch. The combination of Krabatsch and Spaziante does not disclose, teach, or suggest that "the plates at the terminal end of the splash basket are not connected to adjacent plates, whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Accordingly, at least one element recited in each of dependent Claims 28 and 29 is not disclosed, taught, or suggested by the combination of Krabatsch and Spaziante. The Appellant respectfully requests that the Board withdraw the rejection of Claims 28 and 29 under 35 U.S.C. § 103(a).

C. Claim 33

The Examiner's rejection of Claim 33 is improper because the combination of Krabatsch and Spaziante fails to disclose, teach, or suggest at least one element recited in Claim 33, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claim 33.

Claim 33 depends from independent Claim 32, which recites that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Krabatsch does not disclose, teach, or suggest that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Instead, Krabatsch discloses in FIG. 1, for example, a ring-like member 24 (referred to by the Examiner as a "lower edge support 24") at the lower end of the plug. This ring-like member 24 locks the lower end of the plug together so that there is no individual movement with respect to one another of the members that the Examiner considers to be equivalent to the "plates 15" of the present application. See Krabatsch at FIG. 1.

Combining Spaziante with Krabatsch does not cure the deficiencies of Krabatsch. The combination of Krabatsch and Spaziante does not disclose, teach, or suggest that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Accordingly, at least one element recited in dependent Claim 33 is not disclosed, taught, or suggested by the combination of Krabatsch and Spaziante. The Appellant respectfully requests that the Board withdraw the rejection of Claim 33 under 35 U.S.C. § 103(a).

IV. The Rejection of Claims 31 and 36, Under 35 U.S.C. § 103(a) Should Be Withdrawn, Since at Least One Element of Every Rejected Claim is Not Disclosed, Taught, or Suggested by the Combination of Krabatsch and Richter.

On page 9 of the Office Action dated October 6, 2008, the Examiner rejected Claims 31 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Krabatsch in view of U.S. Patent No. 6,733,921 titled "Rechargeable Electric Battery" to Richter.

Appellant submits that the Examiner's rejection of Claims 31 and 36 is improper and should be withdrawn, since the combination of Krabatsch and Richter does not disclose, teach, or suggest at least one element recited in each of the rejected claims.

A. Claim 31

The Examiner's rejection of Claim 31 is improper because the combination of Krabatsch and Richter fails to disclose, teach, or suggest at least one element recited in Claim 31, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claim 31.

Claim 31 depends from independent Claim 23, which recites that "the splash basket comprises a plurality of plates separated by slots distributed around the circumference of the splash basket, the slots continuing to the terminal end of the splash basket such that the plates at the terminal end of the splash basket are not connected to adjacent plates; whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Krabatsch does not disclose, teach, or suggest that "the plates at the terminal end of the splash basket are not connected to adjacent plates, whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Instead, Krabatsch discloses in FIG. 1, for example, a ring-like member 24 (referred to by the Examiner as a "lower edge support 24") at the lower end of the plug. This ring-like member 24 locks the lower end of the plug together so that there is no individual

movement with respect to one another of the members that the Examiner considers to be equivalent to the "plates 15" of the present application. See Krabatsch at FIG. 1.

Combining Richter with Krabatsch does not cure the deficiencies of Krabatsch. The combination of Krabatsch and Richter does not disclose, teach, or suggest that "the plates at the terminal end of the splash basket are not connected to adjacent plates, whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system."

Accordingly, at least one element recited in dependent Claim 31 is not disclosed, taught, or suggested by the combination of Krabatsch and Richter. The Appellant respectfully requests that the Board withdraw the rejection of Claim 31 under 35 U.S.C. § 103(a).

B. Claim 36

The Examiner's rejection of Claim 36 is improper because the combination of Krabatsch and Richter fails to disclose, teach, or suggest at least one element recited in Claim 36, and thus has not established a prima facie case of obviousness. Accordingly, the Appellant respectfully requests that the Board withdraw the rejection of Claim 36.

Claim 36 depends from independent Claim 32, which recites that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Krabatsch does not disclose, teach, or suggest that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Instead, Krabatsch discloses in FIG. 1, for example, a ring-like member 24 (referred to by the Examiner as a "lower edge support 24") at the lower end of the plug. This ring-like member 24 locks the lower end of the plug together so that there is no individual movement with respect to one another of the members that the Examiner considers to be equivalent to the "plates 15" of the present application. See Krabatsch at FIG. 1.

Combining Richter with Krabatsch does not cure the deficiencies of Krabatsch. The combination of Krabatsch and Richter does not disclose, teach, or suggest that "the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery."

Accordingly, at least one element recited in dependent Claim 36 is not disclosed, taught, or suggested by the combination of Krabatsch and Richter. The Appellant respectfully requests that the Board withdraw the rejection of Claim 36 under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing, Appellant submits that:

1. Claims 13-18, 21-27, 30, 32, and 35 are not properly rejected under 35 U.S.C. § 103(a) over Krabatsch;

2. Claims 19-20, 28-29, and 33 are not properly rejected under 35 U.S.C. § 103(a) over Krabatsch in view of Spaziante;

3. Claims 31 and 36 are not properly rejected under 35 U.S.C. § 103(a) over Krabatsch in view of Richter.

Accordingly, it is respectfully requested that the Board withdraw the rejections for Claims 13-36.

Respectfully submitted,

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By: /Marcus W. Sprow/

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (313) 234-7150
Facsimile: (313) 234-2800

Marcus W. Sprow
Attorney for Appellant
Registration No. 48,580

CLAIMS APPENDIX

13. A rechargeable battery having a housing comprising at least two cells that can be filled with an electrolyte, the rechargeable battery comprising:

a degassing system having openings provided therein, the cover and the degassing system arranged such that the openings are located above the cells of the rechargeable battery; and

a sealing plug provided in each of the openings, the sealing plug having an upper part and a lower part, the lower part comprising a splash basket that has an inner cavity that decreases in size from an upper end of the splash basket to a terminal end of the splash basket;

wherein the splash basket comprises a plurality of plates that extend from the upper end of the splash basket to the terminal end of the splash basket, the plates separated from each other by slots that extend to the terminal end of the splash basket such that the plates are not coupled together at the terminal end of the splash basket to allow free movement of the plates at the terminal end of the splash basket.

14. The rechargeable battery of Claim 13 wherein the upper part covers the openings on the outside of the cover and the lower part extends in the direction of the cells.

15. The rechargeable battery of Claim 13 wherein each of the slots has a width that broadens with increasing distance from the terminal end of the splash basket.

16. The rechargeable battery of Claim 13 wherein the sealing plug has an opening provided therein separate from the slots and adjacent to the openings of the degassing

system and the degassing system is connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system.

17. The rechargeable battery of Claim 13 wherein the sealing plug is integrally formed as part of the degassing system.

18. The rechargeable battery of Claim 13 wherein the splash basket has a roughened surface.

19. The rechargeable battery of Claim 13 wherein an acid level indicator is attached to the upper part of the sealing plug and the acid level indicator has a roughened surface.

20. The rechargeable battery of Claim 13 wherein a state of charge indicator is attached to the upper part of the sealing plug and the state of charge indicator has a roughened surface.

21. The rechargeable battery of Claim 13 wherein the terminal end of the splash basket contacts electrolyte provided in the cells.

22. The rechargeable battery of Claim 13, further comprising a cover, wherein the sealing plug has a seal which is fitted to the upper part of the sealing plug for sealing the cover.

23. A rechargeable battery having a housing comprising at least two cells that can be filled with an electrolyte, the rechargeable battery comprising:

a cover having openings provided therein;

a degassing system having openings provided therein, the cover and the degassing system arranged such that the openings provided in the cover and the degassing system are located above the cells of the rechargeable battery; and

a sealing plug provided in each of the openings of the degassing system, the sealing plug having an upper part covering the openings on the outside of the cover and a lower part having a splash basket that has a terminal end extending in the direction of the cells;

wherein the splash basket comprises a plurality of plates separated by slots distributed around the circumference of the splash basket, the slots continuing to the terminal end of the splash basket such that the plates at the terminal end of the splash basket are not connected to adjacent plates;

whereby the separation of the plates at the terminal end of the splash basket allows the splash basket to flex upon insertion into the openings of the degassing system.

24. The rechargeable battery of Claim 23 wherein each of the slots has a width that broadens with increasing distance from the terminal end of the splash basket.

25. The rechargeable battery of Claim 23 wherein the sealing plug has an opening provided therein separate from the slots and adjacent to the openings of the degassing system and the degassing system is connected to the splash basket via the opening in the sealing plug such that the slots form return paths for electrolyte from the degassing system.

26. The rechargeable battery of Claim 23 wherein the sealing plug is integrally formed as part of the degassing system.

27. The rechargeable battery of Claim 23 wherein the splash basket has a roughened surface.

28. The rechargeable battery of Claim 23 wherein an acid level indicator is attached to the upper part of the sealing plug.

29. The rechargeable battery of Claim 23 wherein a state of charge indicator is attached to the upper part of the sealing plug.

30. The rechargeable battery of Claim 23 wherein the terminal end of the splash basket contacts electrolyte provided in the cells.

31. The rechargeable battery of Claim 23 wherein the sealing plug is formed from an electrically conductive plastic.

32. A sealing plug for sealing openings which are incorporated above cells in a rechargeable battery, the sealing plug comprising:

an upper part; and

a lower part which ends in a splash basket, the splash basket having an upper end and a lower terminal end, the splash basket defining an opening that increases in size with increasing distance from the terminal end of the splash basket;

wherein the splash basket comprises a plurality of plates separated by slots that extend from the upper end of the splash basket to the terminal end of the splash basket, the slots narrowing in width from an upper end of the splash basket to the terminal end of the splash basket;

wherein the plates are not connected to adjacent plates at the terminal end of the splash basket to allow free movement of the plates relative to each other upon insertion into an opening of the rechargeable battery.

33. The rechargeable battery of Claim 32 further comprising a state of charge indicator and electrolyte level indicator provided in the upper part and passing through the splash basket, the state of charge indicator and electrolyte level indicator projecting at the terminal end of the splash basket.

34. The rechargeable battery of Claim 33 wherein at least one of the state of charge indicator and the electrolyte level indicator has a roughened surface.

35. The rechargeable battery of Claim 32 wherein the terminal end of the splash basket is configured to contact electrolyte provided in the rechargeable battery.

36. The rechargeable battery of Claim 32 wherein the sealing plug is formed from an electrically conductive plastic.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.